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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Applicant	:	Kameron W. Maxwell
App. No	:	10/675,225
Filed	:	September 29, 2003
For	:	NITROXIDE RADIOPROTECTOR FORMULATIONS AND METHODS OF USE
Examiner	:	James W. Rogers
Art Unit	:	1618

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**Mail Stop AF**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

Enclosed with this Request is a Notice of Appeal.

**REASONS FOR REQUEST**

Review of the above-identified application is requested for the following reasons:

This Pre-Appeal Brief Request for Review is being filed in response to the Advisory Action of February 16, 2007. The Examiner has maintained his rejection of Claims 1-17 and 19-25 under 35 U.S.C. §§ 102(b) and 103(a) in view of Mitchell et al., U.S. Patent No. 5,462,946 and Golz-Berner et al., PCT Publication No. WO 99/66881. However, in so doing, the Examiner has omitted at least two essential elements needed to establish a prima facie case of unpatentability. First, the cited combination of references nowhere discloses or suggests a "low-

residue” formulation, as required by Claims 1-17, 19-23, and 25. Second, the Examiner has focused on the “thickened liquid” limitation of Claims 13-14, 16-17, 19-23, and 25. His grounds of rejection do not apply to Claims 1-12 and 15, which do not contain the “thickened liquid” limitation and are restricted to a “gel” formulation. The Examiner has thus failed to establish a prima facie case of unpatentability of Claims 1-17, 19-23, and 25 under either Section 102(b) or 103(a).

“Low-Residue”

The Examiner has effectively ignored the fact that Claims 1-17, 19-23, and 25 all require that the solution be in a “low-residue” formulation. This limitation lies at the heart of Applicant’s invention. As the present specification makes clear, prior art creams, lotions, shampoos, cream rinses, and ointments such as those disclosed in Mitchell leave residues on the skin that can result in severe burning when applied shortly before the administration of radiotherapy. *See* specification at ¶ [0073]. The problem of residue-induced burning was first recognized by the Applicant, and the described and claimed low-residue formulations avoid the risk of such burning. *See* Amendment and Response mailed January 16, 2007 at 2-3. Indeed, “low-residue” is defined in terms of such burning in the specification: “[a]s used herein, ‘low-residue’ refers to formulations that can be applied to a patient, shortly before undergoing radiotherapy, without leaving a residue capable of enhancing a bolus effect upon delivering radiotherapy to the treated area.” Specification at ¶ [0084].

The Examiner has consistently failed to identify any disclosure of a “low-residue” formulation in Mitchell or Golz-Berner. Nor has he identified any motivation to modify the disclosures of Mitchell or Golz-Berner to make a low-residue formulation. Instead, he has simply pointed to the disclosure in Mitchell of topical ointment, cream or lotion formulations (or aerosol drop or spray formulations<sup>1</sup>) as somehow satisfying the “low-residue” limitation. *See, e.g.,* Office Action mailed April 11, 2006 at 2; Office Action mailed September 15, 2006 at 3; Advisory Action at 2. Yet these are the same formulations specifically distinguished in the

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<sup>1</sup> Mitchell does not disclose the aerosol drop and spray formulations even as topical ionizing radiation protectant formulations, much less as low-residue formulations. The Examiner’s reliance on them is misplaced. *See* Amendment and Response filed January 16, 2007 at 7.

present specification as not being “low-residue” formulations. *See* specification at (0009) (specifically describing prior art including Mitchell as “limit[ing] the topical use of Tempol to formulations selected from creams, lotions, shampoos, cream rinses, and ointments” that “leave residues that can result in topical burning, including severe burns, when radiation is administered.”). Applicant states that Mitchell’s formulations are not low-residue; in effect, the Examiner tells the Applicant that he is wrong. The Examiner has no apparent basis to do so.

Claims 1-12 and 15 are Limited to a “Gel” Formulation

The Examiner’s characterization of the “gel” and “thickened liquid” limitations of Claims 1-17, 19-23, and 25 in the Advisory Action indicates that he has focused on the “thickened liquid” limitation to the exclusion of the “gel” limitation:

Thickened liquid or gel was interpreted in the broadest reasonable way by the examiner therefore the recitation of “thickened” is not considered to be very limiting. The examiner searched thickened liquid or gel to mean any composition that contained a solvent or a solution in which the solvent/solution was more viscous or thickened after addition of the ingredients, for example to make a cake one would use milk and flour, upon mixing milk with flour the batter is more thickened or viscous than just milk alone, the limitation was interpreted in a similar manner. Since an ointment, cream or lotion is thicker or more viscous than a solvent or solution the limitation is considered met. (Emphasis added.)

The “thickened liquid” limitation is, however, entirely absent from Claims 1-12 and 15. The Examiner’s reasoning does not apply to those claims. The Examiner maintains that any sort of composition containing a thickened solution meets the “gel” limitation, including the ointments, creams, and lotions disclosed in Mitchell. As a matter of standard usage in the art, this is clearly wrong. Each of these terms has a distinct meaning, and ointments, creams, and lotions are not gels. *See* Amendment and Response mailed January 16, 2007 at 6-7. The Examiner’s conclusion that an ointment, cream, or lotion satisfies the “gel” limitation is incorrect.

With respect to the “thickened liquid” limitation itself, Applicant believes that it is not disclosed by the cited art of record, but would be willing to remove the limitation from the pending claims if the panel determines that such amendment would place the claims in condition for allowance.

Conclusion

The Examiner's failure to identify a disclosure in Mitchell or Golz-Berner of any "low-residue" formulations, or any gels, represents a clear legal deficiency in the pending rejections. It is black letter law that to anticipate a claim, the cited reference must teach every limitation of the rejected claims. *See* M.P.E.P. § 2131. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Furthermore, to establish a prima facie case of obviousness, the combination of prior art references must teach or suggest every limitation of the claims. *See* M.P.E.P. § 2143.03.

Because neither Mitchell nor Golz-Berner discloses or suggests the "low-residue" or "gel" limitations of Claims 1-17, 19-23, and 25, the rejection of these claims on these grounds under either Section 102(b) or 103(a) is legally deficient. Applicant requests that the pre-appeal brief conference panel withdraw these rejections and allow the application.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 15 MARCH 2007

By: C. Philip Poirier

C. Philip Poirier

Registration No. 43,006

Attorney of Record

Customer No. 20,995

(949) 760-0404